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09/994,516	11/26/2001	Trung T. Doan	500966.01	8536

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EXAMINER	
CLEARY, THOMAS J	
ART UNIT	**PAPER NUMBER**
2111	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/12/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary	Application No.	Applicant(s)	
	09/994,516	DOAN ET AL.	
	Examiner	Art Unit	
	Thomas J. Cleary	2111	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 January 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *9,11-16,19-21,33,34,36-42,44-48 and 50* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *9,11-16,19-21,33,34,36-42,44-48 and 50* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *26 November 2001* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *20070103*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 9, 11-16, 19-21, 33-34, 36-42, 44-48, and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent Number 6,509,911 to Shimotono ("Shimotono"), US Patent Number 5,818,182 to Lim et al. ("Lim"), and US Patent Number 5,818,182 to Viswanadham et al. ("Viswanadham").

3. In reference to Claim 9, Shimotono discloses a central processing unit (CPU) (See Figure 2 Number 210); a memory coupled to the CPU to store data accessible by the CPU (See Figure 2 Number 215); a PCI bus coupled to the CPU and the memory to provide communication therewith (See Figure 2 Number 235); and a PC card (See Figure 2 Number 231 and Column 4 Lines 61-65), the PC card further having a controller coupled to the PC card device for coordinating with the CPU access to the device (See Column 4 Lines 61-65); and a PCI-CardBus bridge coupled to the PC card and the PCI bus to provide communication between the PCI bus and the PC card

coupled to the PCI-CardBus bridge (See Figure 2 Number 230). Shimotono does not disclose the PC card having a non-volatile memory having stored thereon machine state information for a plurality of different computer systems, the PC card further having a controller coupled to the non-volatile memory for coordinating with the CPU access to the non-volatile memory and the memory to store and download the machine state information for capturing and restoring, respectively, a corresponding machine state of a computer system. Shimotono does disclose that the system has a virtual machine (See Column 10 Lines 24-35). Lim discloses storing machine state information (See Column 6 Lines 4-21 and Column 6 Line 40 – Column 7 Line 6) for a plurality of different computer systems having virtual machines (See Column 7 Lines 19-30) in a non-volatile memory (See Column 7 Lines 19-30 and Column 21 Lines 37-51) and a controller coupled to the non-volatile memory for coordinating with the CPU access to the non-volatile memory and the memory to store and download the machine state information for capturing and restoring, respectively, a corresponding machine state of a computer system (See Column 3 Lines 53-65). Viswanadham discloses PCMCIA card, which is compatible with CardBus and can be used in a CardBus slot, having a non-volatile memory as the card device (See Column 1 Line 59 – Column 2 Line 4).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the computer system of Shimotono with checkpoint saving and restoration of Lim, in order to enable complete restoration of the system to any point in its processing without requiring any application or operating system intervention or specialized software or hardware (See Column 6 Lines 4-21 of Lim); to

allow multiple users to have computers restored to the same state, thus reducing maintenance and support costs (See Column 22 Lines 37 – Column 23 Line 33 of Lim), and because device of Lim is designed to be used on any system having a virtual machine (See Column 21 Lines 37-41 of Lim). It would have been further obvious to place the non-volatile memory on the PCMCIA card of Viswanadham because PCMCIA memory cards are small, lightweight, and do not require drive motors (See Column 1 Lines 64-67), and thus can be easily transported between multiple computer systems, and because PCMCIA, which stands for Personal Computer System Memory Card International Association, was designed for memory cards.

4. In reference to Claim 11, Shimotono, Lim, and Viswanadham disclose the limitations as applied to Claim 9 above. Viswanadham further discloses that the non-volatile memory of the PC card comprises a flash memory device (See Column 1 Lines 59-61).

5. In reference to Claim 12, Shimotono, Lim, and Viswanadham disclose the limitations as applied to Claim 9 above. Shimotono further discloses that the PC card further includes a bus interface coupled to the PCI bus, and further coupled to the PC card device and the controller to transfer data between the device and the PCI bus in accordance with a data format and transfer protocol of the PCI bus (See Column 4 Lines 61-65). The PCMCIA card of Viswanadham inherently includes a controller for

transferring data between the flash memory and the attached bus in accordance with the data format and transfer protocol of the attached bus.

6. In reference to Claim 13, Shimotono, Lim, and Viswanadham disclose the limitations as applied to Claim 9 above. Lim further teaches a transfer component directing the controller to coordinate access between the non-volatile memory and the memory to transfer machine state information (See Column 6 Lines 53-65).

7. In reference to Claim 14, Shimotono, Lim, and Viswanadham disclose the limitations as applied to Claim 9 above. Lim further discloses compression and decompression components for compressing the machine state information to be stored and decompressing the stored compressed machine state information to be downloaded, respectively (See Column 23 Line 37 – Column 24 Line 19).

8. In reference to Claim 15, Shimotono, Lim, and Viswanadham disclose the limitations as applied to Claim 9 above. Lim further discloses that the machine state information comprises data from the memory and CPU for returning the computer system to the same condition of operability as when the machine state information was stored in the non-volatile memory (See Column 6 Lines 56-65).

9. In reference to Claim 16, Shimotono discloses an apparatus having a central processing unit (CPU) (See Figure 2 Number 210) coupled to a memory (See Figure 2

Number 215) via a first bus (See Figure 2 Number 216), and further having a PCI bus coupled to the first bus to provide communication with the CPU and the memory (See Figure 2 Number 235); and a PC card coupled to the PCI bus (See Figure 2 Number 231 and Column 4 Lines 61-65), the PC card further having a controller coupled to the PC card device for coordinating with the CPU access to the device (See Column 4 Lines 61-65); and a bus interface compatible with a CardBus and coupled to the PCI bus, the bus interface further coupled to the PC card device and the controller to transfer data between the device and the PCI bus in accordance with a data format and transfer protocol of the PCI bus (See Column 4 Lines 61-65). Shimotono does not disclose that the apparatus is for capturing and restoring a machine state of a computer system, the PC card having a non-volatile memory having stored thereon machine state information corresponding to the machine states for a plurality of different computer systems, further having a controller coupled to the non-volatile memory to control the storing of data therein and the retrieval of data therefrom; and a transfer component for directing the controller to coordinate with the CPU access to the non-volatile memory and the memory to store and download the machine state information for capturing and restoring, respectively, a corresponding machine state of a computer system. Shimotono does disclose that the system has a virtual machine (See Column 10 Lines 24-35). Lim discloses storing machine state information (See Column 6 Lines 4-21 and Column 6 Line 40 – Column 7 Line 6) for a plurality of different computer systems having virtual machines (See Column 7 Lines 19-30) in a non-volatile memory (See Column 7 Lines 19-30 and Column 21 Lines 37-51) and a controller coupled to the non-

volatile memory for coordinating with the CPU access to the non-volatile memory and the memory to store and download the machine state information for capturing and restoring, respectively, a corresponding machine state of a computer system (See Column 3 Lines 53-65); and a transfer component directing the controller to coordinate with the CPU access to the non-volatile memory and the memory to store and download the machine state information for capturing and restoring, respectively, a corresponding machine state of a computer system (See Column 6 Lines 53-65). Viswanadham discloses PCMCIA card, which is compatible with CardBus and can be used in a CardBus slot, having a non-volatile memory as the card device (See Column 1 Line 59 – Column 2 Line 4).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the computer system of Shimotono with checkpoint saving and restoration of Lim, in order to enable complete restoration of the system to any point in its processing without requiring any application or operating system intervention or specialized software or hardware (See Column 6 Lines 4-21 of Lim); to allow multiple users to have computers restored to the same state, thus reducing maintenance and support costs (See Column 22 Lines 37 – Column 23 Line 33 of Lim), and because device of Lim is designed to be used on any system having a virtual machine (See Column 21 Lines 37-41 of Lim). It would have been further obvious to place the non-volatile memory on the PCMCIA card of Viswanadham because PCMCIA memory cards are small, lightweight, and do not require drive motors (See Column 1 Lines 64-67), and thus can be easily transported between multiple computer systems,

and because PCMCIA, which stands for Personal Computer System Memory Card International Association, was designed for memory cards.

10. In reference to Claim 19, Shimotono, Lim, and Viswanadham disclose the limitations as applied to Claim 16 above. Viswanadham further discloses that the non-volatile memory of the PC card comprises a flash memory (See Column 1 Lines 59-61).

11. In reference to Claim 20, Shimotono, Lim, and Viswanadham disclose the limitations as applied to Claim 16 above. Lim further discloses that the transfer component comprises: a storing component for directing the controller to store machine state information from the CPU and memory to the non-volatile memory (See Column 6 Lines 54-55); and a download component for directing the controller to transfer data from the nonvolatile memory to the CPU and the memory (See Column 6 Lines 56-65).

12. In reference to Claim 21, Shimotono, Lim, and Viswanadham disclose the limitations as applied to Claim 16 above. Lim further discloses compression and decompression components for compressing the machine state information to be stored and decompressing the stored compressed machine state information to be downloaded, respectively (See Column 23 Line 37 – Column 24 Line 19).

13. In reference to Claim 33, Shimotono discloses a central processing unit (CPU) (See Figure 2 Number 210); a local CPU bus coupled to the CPU (See Figure 2

Number 216); a memory coupled to the local CPU bus to store data accessible by the CPU via the local CPU bus (See Figure 2 Number 215); a PCI bus coupled to the local CPU bus to provide communication with the CPU and the memory via the local CPU bus (See Figure 2 Number 235); a PCI-CardBus bridge coupled to the PCI bus to provide communication between the PCI bus and a CardBus compatible PC card (See Figure 2 Number 230); a CardBus compatible PC card coupled to the PCI-CardBus bridge (See Figure 2 Number 231 and Column 4 Lines 61-65), the PC card further having a controller coupled to the PC card device for coordinating with the CPU access to the device (See Column 4 Lines 61-65); and wherein the PC card further includes a bus interface coupled to the PCI bus, and further coupled to the PC card device and the controller to transfer data between the device and the PCI bus in accordance with a data format and transfer protocol of the PCI bus (See Column 4 Lines 61-65). Shimotono does not disclose the PC card having a non-volatile memory having stored thereon machine state information corresponding to the machine states for a plurality of computer systems, further having a controller coupled to the non-volatile memory to control the storing of data therein and the retrieval of data therefrom; and a transfer component for directing the controller to coordinate with the CPU access to the non-volatile memory and the memory to store and download the machine state information for capturing and restoring, respectively, a corresponding machine state of a computer system. Shimotono does disclose that the system has a virtual machine (See Column 10 Lines 24-35). Lim discloses storing machine state information (See Column 6 Lines 4-21 and Column 6 Line 40 – Column 7 Line 6) for a plurality of different computer

systems having virtual machines (See Column 7 Lines 19-30) in a non-volatile memory (See Column 7 Lines 19-30 and Column 21 Lines 37-51) and a controller coupled to the non-volatile memory for coordinating with the CPU access to the non-volatile memory and the memory to store and download the machine state information for capturing and restoring, respectively, a corresponding machine state of a computer system (See Column 3 Lines 53-65); and a transfer component directing the controller to coordinate with the CPU access to the non-volatile memory and the memory to store and download the machine state information for capturing and restoring, respectively, a corresponding machine state of a computer system (See Column 6 Lines 53-65). Viswanadham discloses PCMCIA card, which is compatible with CardBus and can be used in a CardBus slot, having a non-volatile memory as the card device (See Column 1 Line 59 – Column 2 Line 4).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the computer system of Shimotono with checkpoint saving and restoration of Lim, in order to enable complete restoration of the system to any point in its processing without requiring any application or operating system intervention or specialized software or hardware (See Column 6 Lines 4-21 of Lim); to allow multiple users to have computers restored to the same state, thus reducing maintenance and support costs (See Column 22 Lines 37 – Column 23 Line 33 of Lim), and because device of Lim is designed to be used on any system having a virtual machine (See Column 21 Lines 37-41 of Lim). It would have been further obvious to place the non-volatile memory on the PCMCIA card of Viswanadham because PCMCIA

memory cards are small, lightweight, and do not require drive motors (See Column 1 Lines 64-67), and thus can be easily transported between multiple computer systems, and because PCMCIA, which stands for Personal Computer System Memory Card International Association, was designed for memory cards.

14. In reference to Claim 34, Shimotono, Lim, and Viswanadham disclose the limitations as applied to Claim 33 above. Viswanadham further discloses that the non-volatile memory of the PC card comprises a flash memory (See Column 1 Lines 59-61).

15. In reference to Claim 36, Shimotono, Lim, and Viswanadham disclose the limitations as applied to Claim 35 above. Lim further discloses compression and decompression components for compressing the machine state information to be stored and decompressing the stored compressed machine state information to be downloaded, respectively (See Column 23 Line 37 – Column 24 Line 19).

16. In reference to Claim 37, Shimotono, Lim, and Viswanadham disclose the limitations as applied to Claim 33 above. Lim further discloses that the machine state information comprises data from the memory and CPU for returning the computer system to the same condition of operability as when the machine state information was stored in the non-volatile memory (See Column 6 Lines 56-65).

17. In reference to Claim 38, Shimotono discloses a computer system having a central processing unit (CPU) (See Figure 2 Number 210) coupled to a memory (See Figure 2 Number 215), and further having a bus coupled to the CPU and memory to provide communication therewith (See Figure 2 Number 235), a PC card (See Figure 2 Number 231 and Column 4 Lines 61-65), and wherein transferring information to the PC card comprises transferring data from the CPU and the memory to the PC card in accordance with a CardBus protocol (See 2 Numbers 230 and 231 and Column 4 Lines 61-65). Shimotono does not teach a method for storing a machine state of the computer system, comprising: capturing the machine state of the computer system; transferring machine state information corresponding to the captured machine state from the computer system to a PC card having a non-volatile memory; and storing the machine state information in the non-volatile memory in which machine state information for a plurality of different computer systems are stored, the transfer coordinated by a controller operably coupled to a non-volatile memory to control the storing of data therein and the retrieval of data therefrom in order to restore the stored machine state when the machine state information is provided to a computer system. Shimotono does disclose that the system has a virtual machine (See Column 10 Lines 24-35). Lim discloses storing machine state information (See Column 6 Lines 4-21 and Column 6 Line 40 – Column 7 Line 6) for a plurality of different computer systems having virtual machines (See Column 7 Lines 19-30) in a non-volatile memory (See Column 7 Lines 19-30 and Column 21 Lines 37-51) and a controller coupled to the non-volatile memory for coordinating with the CPU access to the non-volatile memory and

the memory to store and download the machine state information for capturing and restoring, respectively, a corresponding machine state of a computer system (See Column 3 Lines 53-65); a transfer component directing the controller to coordinate with the CPU access to the non-volatile memory and the memory to store and download the machine state information for capturing and restoring, respectively, a corresponding machine state of a computer system (See Column 6 Lines 53-65); and storing the machine state information in the non-volatile memory in order to restore the stored machine state when the machine state information is provided to a computer system (See Column 6 Lines 56-65). Viswanadham discloses PCMCIA card, which is compatible with CardBus and can be used in a CardBus slot, having a non-volatile memory as the card device (See Column 1 Line 59 – Column 2 Line 4).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the computer system of Shimotono with checkpoint saving and restoration of Lim, in order to enable complete restoration of the system to any point in its processing without requiring any application or operating system intervention or specialized software or hardware (See Column 6 Lines 4-21 of Lim); to allow multiple users to have computers restored to the same state, thus reducing maintenance and support costs (See Column 22 Lines 37 – Column 23 Line 33 of Lim), and because device of Lim is designed to be used on any system having a virtual machine (See Column 21 Lines 37-41 of Lim). It would have been further obvious to place the non-volatile memory on the PCMCIA card of Viswanadham because PCMCIA memory cards are small, lightweight, and do not require drive motors (See Column 1

Lines 64-67), and thus can be easily transported between multiple computer systems, and because PCMCIA, which stands for Personal Computer System Memory Card International Association, was designed for memory cards.

18. In reference to Claim 39, Shimotono, Lim, and Viswanadham disclose the limitations as applied to Claim 38 above. Lim further discloses that capturing, transferring and storing the machine state information is in response to executing a power down procedure (See Column 18 Lines 50-56).

19. In reference to Claim 40, Shimotono, Lim, and Viswanadham disclose the limitations as applied to Claim 38 above. Lim further discloses that capturing, transferring and storing the machine state information is in response to a user request (See Column 6 Lines 47-48 and Column 22 Lines 62-66).

20. In reference to Claim 41, Shimotono, Lim, and Viswanadham disclose the limitations as applied to Claim 38 above. Lim further discloses that the machine state information comprises data from the memory and CPU for returning the computer system to the same condition of operability as when the machine state information was stored in the non-volatile memory (See Column 6 Lines 56-65).

21. In reference to Claim 42, Shimotono, Lim, and Viswanadham disclose the limitations as applied to Claim 38 above. Lim further discloses that capturing the

machine state of the computer system comprises: capturing data present in the memory; and capturing data present in registers of the CPU (See Column 6 Lines 30-65).

22. In reference to Claim 44, Shimotono, Lim, and Viswanadham disclose the limitations as applied to Claim 38 above. Lim further discloses compressing the machine state information to be stored in the non-volatile memory (See Column 23 Line 37 – Column 24 Line 19).

23. In reference to Claim 45, Shimotono discloses a computer system having a central processing unit (CPU) (See Figure 2 Number 210) coupled to a memory (See Figure 2 Number 215), and further having a bus coupled to the CPU and memory to provide communication therewith (See Figure 2 Number 235), and a PC card (See Figure 2 Number 231 and Column 4 Lines 61-65), coupling the PC card to the computer system (See Figure 2 Number 231); and wherein transferring information from the PC card comprises transferring data from the PC card to the computer system in accordance with a CardBus protocol (See Figure 1 Number 24). Shimotono does not disclose a method for restoring a machine state of the computer system, comprising: capturing machine states for a plurality of computer systems in a PC card having non-volatile memory in which machine state information corresponding to the machine states are stored; identifying machine state information corresponding to the machine state to which the computer system is to be restored in a non-volatile memory;

transferring the machine state information from the non-volatile memory to the computer system via a controller coupled to the non-volatile memory to control the storing of data therein and the retrieval of data therefrom; and writing data of the machine state information to the memory and CPU in order to restore the computer system to the identified machine state. Shimotono does disclose that the system has a virtual machine (See Column 10 Lines 24-35). Lim discloses storing machine state information (See Column 6 Lines 4-21 and Column 6 Line 40 – Column 7 Line 6) for a plurality of different computer systems having virtual machines (See Column 7 Lines 19-30) in a non-volatile memory (See Column 7 Lines 19-30 and Column 21 Lines 37-51) and a controller coupled to the non-volatile memory for coordinating with the CPU access to the non-volatile memory and the memory to store and download the machine state information for capturing and restoring, respectively, a corresponding machine state of a computer system (See Column 3 Lines 53-65); a transfer component directing the controller to coordinate with the CPU access to the non-volatile memory and the memory to store and download the machine state information for capturing and restoring, respectively, a corresponding machine state of a computer system (See Column 6 Lines 53-65); and writing data of the machine state information to the memory and CPU in order to restore the computer system to the identified machine state (See Column 6 Lines 56-65). Viswanadham discloses PCMCIA card, which is compatible with CardBus and can be used in a CardBus slot, having a non-volatile memory as the card device (See Column 1 Line 59 – Column 2 Line 4).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the computer system of Shimotono with checkpoint saving and restoration of Lim, in order to enable complete restoration of the system to any point in its processing without requiring any application or operating system intervention or specialized software or hardware (See Column 6 Lines 4-21 of Lim); to allow multiple users to have computers restored to the same state, thus reducing maintenance and support costs (See Column 22 Lines 37 – Column 23 Line 33 of Lim), and because device of Lim is designed to be used on any system having a virtual machine (See Column 21 Lines 37-41 of Lim). It would have been further obvious to place the non-volatile memory on the PCMCIA card of Viswanadham because PCMCIA memory cards are small, lightweight, and do not require drive motors (See Column 1 Lines 64-67), and thus can be easily transported between multiple computer systems, and because PCMCIA, which stands for Personal Computer System Memory Card International Association, was designed for memory cards.

24. In reference to Claim 46, Shimotono, Lim, and Viswanadham disclose the limitations as applied to Claim 45 above. Lim further discloses that identifying, transferring, and writing the machine state information is in response to executing a power up procedure (See Column 18 Lines 50-56).

25. In reference to Claim 47, Shimotono, Lim, and Viswanadham disclose the limitations as applied to Claim 45 above. Lim further discloses that identifying,

transferring, and writing the machine state information is in response to a user request (See Column 6 Lines 47-48 and Column 22 Lines 62-66).

26. In reference to Claim 48, Shimotono, Lim, and Viswanadham disclose the limitations as applied to Claim 45 above. Lim further discloses that the machine state information comprises data from the memory and CPU for returning the computer system to the same condition of operability as when the machine state information was stored in the non-volatile memory (See Column 6 Lines 56-65).

27. In reference to Claim 50, Shimotono, Lim, and Viswanadham disclose the limitations as applied to Claim 45 above. Lim further discloses that the machine state information stored in the non-volatile memory is in a compressed data format, and the method further comprises decompressing the machine state information to be transferred to the computer system (See Column 23 Line 37 – Column 24 Line 19).

28.

Drawings

29. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the PC card storing machine states for a plurality of different computer systems must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the Examiner, the Applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

30. The abstract of the disclosure is objected to because the claimed invention is not described in the abstract. Correction is required. See MPEP § 608.01(b).

Response to Arguments

31. Applicant's arguments with respect to Claims 9, 11-16,19-21, 33-34, 36-42, 44-48, and 50 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

32. The following prior art made of record and not relied upon is considered pertinent to Applicant's disclosure: US Patent Number 6,636,963 to Stein et al.; US Patent Number 6,792,556 to Dennis; US Patent Number 6,658,562 to Bonomo et al.; 6,446,203 to Aguilar et al.; US Patent Number 5,577,220 to Combs et al.; US Patent Number 5,317,752 to Jewett et al.

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Thomas J. Cleary whose telephone number is 571-272-3624. The Examiner can normally be reached on Monday-Thursday (7-3), Alt. Fridays (7-2).

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Mark Rinehart can be reached on 571-272-3632. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TJC

MARK H. RINEHART
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Art Unit 2111